

REMARKS

Claims 49-90 are pending. Claims 80-90 have been added. With respect to the continued rejection of claims 49-79, the undersigned incorporates the arguments herein from the response dated 1/25/05 in their entirety and requests reconsideration thereof.

Claims 80-90 include the following language "...for recording a replica of the hologram having an electrically controllable variable diffraction efficiency therein in a single step forming a photochemically cured polymer matrix, ...;" and "...further wherein polymer-dispersed liquid crystal material has an anisotropic spatial distribution of phase-separated liquid crystal droplets within the photochemically cured polymer matrix." Conventional PDLC materials made by a single-step process can achieve at best only regions of larger liquid crystal droplets and smaller liquid crystal droplets in a polymer matrix. The large bubble sizes are highly scattering, producing a hazy appearance and multiple order diffractions, in contrast to the well-defined first order diffraction and zero order diffraction resulting from the small liquid crystal droplets of the preferred PDLC material in well-defined channels of liquid crystal-rich material. Reasonably well-defined alternately liquid crystal-rich channels and nearly pure polymer channels in a PDLC material are possible by multi-step processes, but such processes do not achieve the precise control of morphology over liquid crystal droplet size and distribution of size and width of the polymer and liquid crystal-rich channels made possible by the use of PDLC material.

CONCLUSION

In view of the remarks stated above, the undersigned representative respectfully submits that claims 49-90 are allowable over the cited art. A notice of allowance to this effect is earnestly solicited. Should the Office require further information and/or feel that contacting the undersigned will expedite prosecution, the Office is invited to do so at the number provided below.

Respectfully submitted,

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